What is claimed is:

1. A system for monitoring at least one event and detecting at least one indicator that precedes a

5   failure in a storage area network, comprising:

a switch element having a port monitoring module that detects when a fibre channel port link indicator varies from a threshold value for the fibre channel port link indicator.

10   2. The system of Claim 1, where the port monitoring module sends a message to a performance monitoring module to process an event when the fibre channel port link indicator varies from the threshold value.

15   3. The system of Claim 2, wherein the performance monitoring module may notify a host computer when the fibre channel port link indicator varies from the threshold value.

4. The system of Claim 2, wherein the fibre

20   channel port whose port link indicator varies from the threshold value may be taken off-line.

5. A system for monitoring at least one event and detecting at least one indicator that precedes a failure in a storage area network, comprising:

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a fabric monitoring module that detects when a remote fabric switch and a local fabric switch cannot exchange information and then sends a message to a threshold monitoring module.

5   6.   The system of Claim 5, where a host system is notified that the remote and the local fabric switch cannot exchange information.

7. A system for monitoring at least one event and detecting at least one indicator that precedes an

10   failure in a storage area network, comprising:

a chassis monitoring module that detects when an indicator varies from a threshold value
and notifies a threshold monitoring module of the variation.

15   8.   The system of Claim 7, where a host computer is notified of the variation.

9.   The system of Claim 7, where a remote fabric switch is notified of the variation.

10. A system for monitoring at least one event and

20   detecting at least one indicator that precedes a failure in a storage area network, comprising:

a threshold monitoring module that receives a message at least one monitoring agent

25   indicating if an indicator varies from a

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threshold value, and in response to the
message, the threshold monitoring module
coordinates an event.

11. The system of Claim 10, wherein the threshold
values are stored in a threshold table.

12. The system of Claim 10, wherein the monitoring
agent includes a Chassis monitoring module, a
fabric monitoring module, a port monitoring
module, and/or a Nx_port event monitoring
module.

13. The system of Claim 11, wherein the threshold
value are updated.

14. The system of Claim 10, where the threshold-
monitoring module notifies an event response
module when an indicator value varies from a
threshold value.

15. The system of Claim 14, where an event is
generated in response to the notification
based on an event table.

16. The system of Claim 14, where the event
response module may notify a host computer of
the variation.

17. A method for monitoring at least one event and
detecting at least one indicator that precedes

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a failure in a storage area network,

comprising:

monitoring at least one event by using at

least one monitoring agent in a fabric switch;

5   comparing an indicator value to a threshold

value corresponding to the indicator; and

notifying a threshold monitoring module if the

parameter value varies from the threshold

value.

10   18. The method of Claim 17, further comprising:

consolidating plural threshold variations and

notifying an event response module of the

variations.

   19. The method of Claim 18, further comprising:

15   generating events in response to a threshold

variation.

   20. The method of Claim 18, further comprising:

notifying a host computer of the threshold

variation.

20   21. A system for notifying a computing system of

an indicator that precedes a failure in a

storage area network, comprising:

at least one monitoring module that monitors

an indicator that can result in a failure in

25   the storage area network; and

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a threshold monitoring module that compares the indicator to a threshold value and coordinates an event if the indicator value varies from the threshold value.

5   22. The system of Claim 21, where a threshold table maintains the threshold value that can be updated.

23. The system of Claim 22, where the monitoring module may include at least a chassis monitor,

10   port monitor, Nx_Port monitor, and/or fabric monitor.

24. The system of Claim 23, where the chassis detects when an indicator varies from a threshold value and notifies the threshold monitoring module

15   of the variation.

25. The system of Claim 23, where the port monitoring module sends a message to the threshold monitoring module to process an event when a fibre channel port link indicator varies from the

20   threshold value.

26. The system of Claim 23, where the fabric monitoring module detects when a remote fabric switch and a local fabric switch cannot exchange information and then sends a message to the

25   threshold monitoring module.

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